

PATENTREMARKS

Claims 1 and 3-23 are currently pending in this application. Claims 1, 10 and 21 have been amended. No new matter has been added by these amendments. Applicants have carefully reviewed the Advisory Action and respectfully request reconsideration of the claims in view of the remarks presented below.

Claim Rejections Under 35 U.S.C. §102

Claims 1-3, 5, 7 10-16 and 21 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,381,493 (Stadler).

Independent claims 1 and 21 relate to methods and systems for detecting ischemia based on T-wave energy values and T-wave maximum slopes. Claim 1 recites detecting a plurality of individual T-waves within cardiac signals; determining an energy value for each of the plurality of individual T-waves; calculating a plurality of slopes for each of the plurality of individual T-waves; for each of the plurality of individual T-waves, determining the maximum slope from the plurality of slopes and comparing the maximum slope to a threshold maximum slope and the energy value to a threshold energy value; and detecting cardiac ischemia when the energy value and the maximum slope of one or more of the individual T-waves exceed their respective threshold.

Stadler discloses an ST segment slope parameter that is calculated as the absolute value difference between first and second ST segment data point values on an ECG waveform. See column 20, line 61-63 and column 21, lines 64-67. Stadler does not disclose calculating a plurality of slopes for an individual segment and determining a maximum slope for that individual segment from the plurality of calculated slopes. Even if Stadler did disclose the calculation of a maximum slope, which Applicants believe it does not, Stadler does not disclose comparing a maximum slope to a threshold maximum slope and an energy value to a threshold energy value; and detecting cardiac ischemia when the energy value and the maximum slope of one or more of the individual segments exceed their respective threshold.

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In view of the foregoing, Applicants submits that Stadler fails to disclose each and every element and feature recited in claims 1 and 21. Accordingly, Applicants request reconsideration of the §102 rejections of these claims and their respective dependent claims.

Claim 17 was rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,148,812 (Verrier).

Independent claim 17 recites a system including a T-wave detection subsystem operative to detect a plurality of individual T-waves in a cardiac signal; a T-wave energy integration subsystem operative to detect a total energy for each of a plurality of the individual T-waves; and a cardiac ischemia detection subsystem operative to detect cardiac ischemia based on the total energy of one of the individual T-waves, an average of the total energies of a plurality of the other T-waves and a threshold value.

Prior Office Actions have cited Verrier, column 6, line 60 as disclosing Applicants' claimed ischemia detection subsystem. Applicants have previously submitted and again submit that Verrier does not disclose a subsystem operative to detect cardiac ischemia based on the total energy of one of the individual T-waves, an average of the total energies of a plurality of other T-waves and a threshold value. Accordingly, the §102(b) rejection of claim 17 is unsupported by the applied reference and should be withdrawn.

The Examiner is reminded that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently, in a single prior art reference and that the identical invention must be shown in as complete detail as contained in the claim. See MPEP §2131. Accordingly, if the next communication from the Office maintains that Verrier discloses Applicants' claimed ischemia detection subsystem, Applicants request that such communication include detailed citations to Verrier that specifically disclose each and every feature of the claimed ischemia detection subsystem, including a total energy of one of the individual T-waves, an average of the total energies of a plurality of other T-waves and a threshold value.

BEST AVAILABLE COPY**PATENT**Claim Rejections Under 35 U.S.C. §103

Claims 6 and 8 were rejected under 35 U.S.C. §103(a) as being unpatentable over Stradler et al. Claim 4 was rejected under 35 U.S.C. §103(a) as being unpatentable over Stadler in view of U.S. Patent Publication 2002/015807 (Goldin). Claim 9 was rejected under 35 U.S.C. §103(a) as being unpatentable over Stadler in view of Verrier. Claims 18-20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Verrier in view of Stadler.

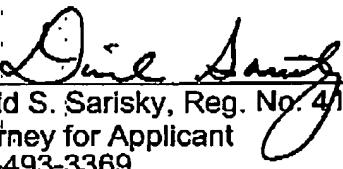
In view of the foregoing analysis of independent claims 1 and 17 in view of Stadler and Verrier Applicants believe that the rejections under §103 are rendered moot as each of dependent claims 4, 6, 8, 9 and 18-20 depend from allowable independent claims.

CONCLUSION

Applicants have made an earnest and bona fide effort to clarify the issues before the Examiner and to place this case in condition for allowance. Therefore, allowance of Applicants' claims 1 and 3-23 is believed to be in order.

Respectfully submitted,

4 APR 2006
Date



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CUSTOMER NUMBER: 36802

Serial No. 10/603,398

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